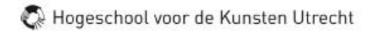
PROGRAMME GUIDE 11TH INTERNATIONAL SOCIETY FOR MUSIC INFORMATION RETRIEVAL CONFERENCE August 9-13, 2010 Utrecht, Netherlands





ISMIR 2010 is organized by:







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Welcome to ISMIR 2010

Welcome to the *11th International Society for Music Information Retrieval Conference* (ISMIR 2010). ISMIR 2010 will be convened in Utrecht, Netherlands, 9-13 August 2010 and is jointly organised by Utrecht University, the Utrecht School of the Arts, the Meertens Institute, Philips Research and the University of Oldenburg.

Since its inception in 2000, ISMIR has been the world's leading forum for research on the modelling, creation, searching, processing and use of musical data. As the term Music Information Retrieval (MIR) indicates, this research is motivated by the desire to provide music lovers, music professionals and music industry with robust, effective and usable methods and tools to help them locate, retrieve and experience the music they wish to have access to. MIR is a truly interdisciplinary area, involving researchers from the disciplines of musicology, cognitive science, library and information science, computer science and many others.

Just like previous ISMIRs, ISMIR 2010 will provide a venue for the exchange of ideas, issues, results and perspectives. It will bring together researchers, developers, educators, librarians, students, and professional users. They will be able to present and discuss their ideas in various formats, such as plenary and poster presentations, demonstrations, discussions and tutorials. ISMIR 2010 will cover the entire area of MIR, providing ample room for diversity and new developments.

It is increasingly realised in the MIR community that music only becomes music by its processing by the human mind, and that studying the human processing of music is a key issue in innovative MIR research. Therefore, MIR research and applications that model musical cognition and perception, that contribute to the human understanding and experience of music, or that make creative use of MIR research will receive particular attention during ISMIR 2010.

In the week before ISMIR 2010, the Utrecht Summer School on Music Information Retrieval (USMIR) was organised by the Department of Information and Computing Sciences (ICS) of Utrecht University and the Institute of Psychoacoustics and Electronic Music (IPEM) of Ghent University, Belgium. Twenty-eight students from 15 different countries participated in this Summer School: most of them will also attend ISMIR 2010.

Conference Committee

General Chair Frans Wiering

Program Chairs J. Stephen Downie Remco C. Veltkamp

Tutorials Chair Steffen Pauws

Late Breaking and Demo Chairs François Pachet Kjell Lemström

Finance Chair Wilke Schram

Industrial Relations, Exhibits and Sponsoring Chair Marco Spruit

Publicity Chair W. Bas de Haas

Local Organising Committee

Peter van Kranenburg Geraldine Leebeek Steven van de Par Sandor Spruit Hans Timmermans

USMIR Summer School Committee Micheline Lesaffre Chris Müller Geraldine Leebeek Frans Wiering

Program Committee

David Bainbridge Juan Pablo Bello Michael Casev Oscar Celma Elaine Chew Sally Jo Cunningham Ichiro Fujinaga Emilia Gómez Masataka Goto Keiji Hirata Youngmoo Kim Carol Krumhansl Olivier Lartillot Kjell Lemstrom Meinard Müller François Pachet Craig Sapp Markus Schedl Joan Serrà Malcolm Slaney Godfried Toussaint George Tzanetakis Anja Volk Geraint Wiggins

Graphic design

Gijs Bekenkamp

Volunteers

Jörg Garbers Stefan van Jole Cynthia Liem Alexander Melchior Wienand Omta Brian Pauw Sebastian Stober (photography) Reinier de Valk Luc Wiering Wouter Witvoet

Directions and Maps

From the train station, Utrecht Centraal, to the Conservatoire

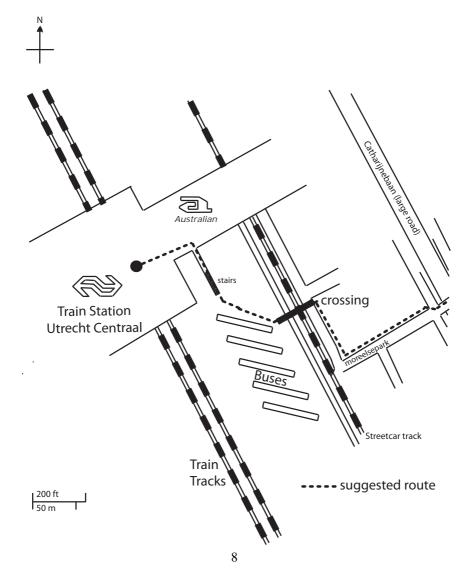
When you are in the main hall of the train station (upper floor) facing the large blue timetable, take the exit on your left hand (east) side. Walk through the hall up to the chocolate/ice cream bar "Australian" and take the corridor on the right. At the end, take the mechanical escalator down. You are now at the bus station. Continue in the same direction, keeping somewhat to the left, cross the road and street car track at the pedestrian crossing, and turn right. Subsequently, take a left at the next corner. Now, walk a few hundred meters straight on, passing several small streets and a bridge over a large road. Turn right at the end, when facing the Japanese restaurant "Konnichiwa". Look right for the ISMIR 2010 banners and you have arrived at the conservatoire.

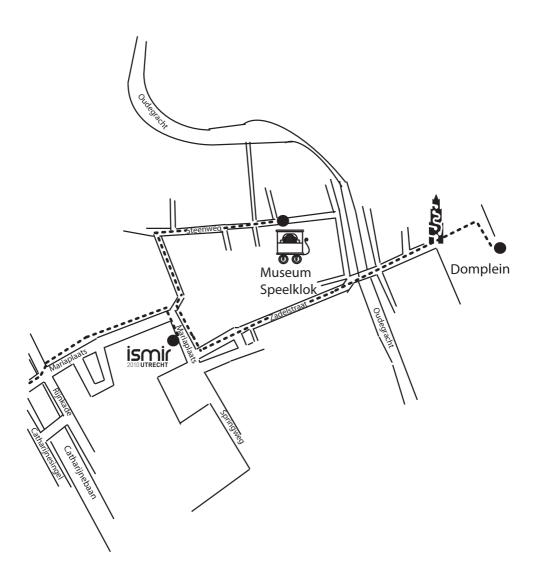
From the Conservatoire to the Museum Speelklok (dinner)

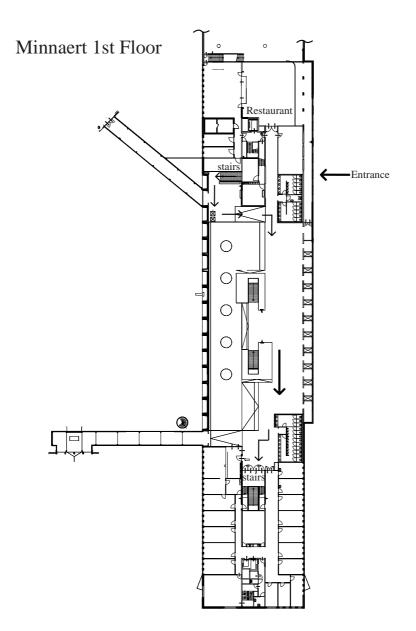
When you exit the conservatoire, cross the street and take a left. Walk through the pedestrian area to the end of the street and take a right. Follow the shopping street until you reach the museum, which is located in an old church ("Buurkerk").

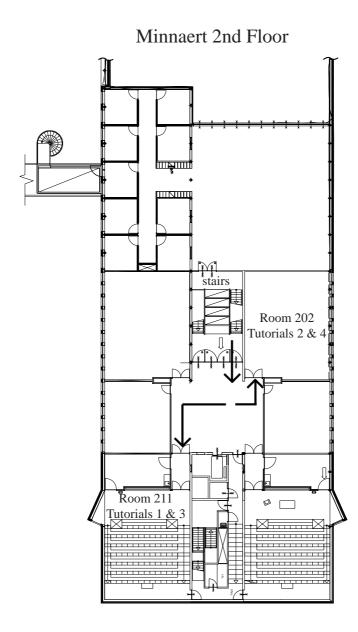
From the Conservatoire to the Academie gebouw (reception)

When you exit the conservatoire, cross the street turn right and directly turn left again. Follow the "Zadelstraat" crossing the main canal in Utrecht, the "Oudegracht", and walk underneath the Dom tower until you reach the "Domplein" square. Cross the square, turn right and you have reached the Academie gebouw.









General Information

Registration

Monday 9 August, the registration desk is located in the main hall of the Minnaert Building. Tuesday 10 August to Friday 13 August the registration desk is located at the entrance of the Conservatoire. The registration desk is open from 9:00 am to 6:00 pm on Monday to Thursday and until 14:00 am on Friday. Registration is possible on every day of the conference. The registration desk staff is happy to answer with any question you may have concerning ISMIR or staying in Utrecht.

All participants are expected to wear the badges that will be given to them at time of registration.

Information for Presenters

Oral Presentations

Time: your presentation should be 15 minutes plus 5 minutes for questions and changeover to the next speaker. Please report your presence to the session chair in the oral presentation room at least 15 minutes before the start of your session and make sure that the presentation devices work properly. Technical assistence will be provided by Jörg Garbers.

The oral presentation room will be equipped with a video projector (res.: 1024*768, D-sub 15-pin VGA connector), an audio output (3.5 mm stereo minijack or paired 1/4" jacks) and a microphone. You can use either you own laptop or the laptop provided by the ISMIR 2010 organization. No other presentation devices such as an overhead projector will be available. There is a cable network connection for presenters.

If you need the piano for demonstration during your presentation, please ask it to be unlocked before the session starts. **Otherwise it is not allowed to play the piano, and no exceptions can made to this rule.**

Poster Presentations

Each poster presentation will be provided with a poster board. All poster presentations are numbered and will be assigned to a particular poster board. Adhesive tapes will be provided for the posters. Put up your poster on the board that has your poster number before the morning session starts, even if your poster session is in the afternoon. Remove your poster at the end of the day. Unclaimed posters will be recycled.

The exception is the Wednesday poster session. The posters of Poster Session 3 need to be removed at lunchtime to make room for the MIREX posters. MIREX posters must be put up during or shortly after lunchtime.

Emergency

In case of emergency you can contact the ISMIR 2010 general chair Frans Wiering: +31 6 44 33 49 49

Lunch

From Tuesday to Friday, a boxed lunch will be provided to each participant at the canteen of the Conservatoire (fround floor) after the morning sessions. Lunch on Monday is not included in the conference fee. You can buy lunch at the university canteen in the Minaert Building. The ISMIR crew will be present to direct you to the university canteen.

Meeting Rooms

There are several rooms available for private meetings. In general, room k218 can be used for meetings, but if you need another more private room, please contact someone from the organization. He or she will direct you to a meeting room.

Internet Access

ISMIR 2010 provides internet access within the conference venue during conference hours at no charge. Since this wireless network is a best effort network, you may experience the typical wireless network limitations, such as areas of reduced signal strength, limited client capacity, or other coverage difficulties within certain areas and times. In

the Minnaert Building there are several open access wireless networks you can use. In the Conservatoire, you can choose between three different networks.

Printing

It is possible to print a paper or other documents. There is a computer and printer set up in room k218 (second floor). You can ask someone from the organization to assist you.

Programme

Short Overview

Monday 9 August (at Minnaert Building, Uithof)

9:00-10:00	Registration
10:00-13:00	Tutorials 1 (Minnaert 211) and 2 (Minnaert 202)
13:00-14:00	Lunch (Minnaert Restaurant; not included in registration fee)
14:00-17:00	Tutorials 3 (Minnaert 211) and 4 (Minnaert 202)
17:00-19:00	Drinks (Minnaert Restaurant)

Tuesday 10 August (at Conservatoire)

9:00–9:45 9:45–10:00	Registration Opening
10:00-11:00	Keynote speech by Carol Krumhansl (Cornell University):
	Music and Cognition: Links at Many Levels.
11:00-13:00	Poster session 1
13:00-14:00	Lunch
14:00-16:00	Plenary session 1
16:00-17:45	Poster session 2
18:00-20:30	Reception (at Academiegebouw)
18:45	Carillon Recital (for program see page 34)

Wednesday 11 August (at Conservatoire)

9:00-9:30	Registration
9:30-11:30	Plenary session 2
11:30-13:00	Poster session 3
13:00-14:00	Lunch
14:00-16:00	Plenary session 3
16:00-17:45	MIREX
18:00-19:00	HKU Recital (for program see page 36)

Thursday 12 August (at Conservatoire)

9:00-9:30	Registration	
9:30-10:15	f(MIR) talks	
10:15-11:00	f(MIR) Industrial panel:	
	• Douglas Eck (Google)	

- Greg Mead (Musicmetric)
- Martin Roth (RjDj)
- Ricardo Tarrasch (Meemix)
- moderator: Rebecca Fiebrink (Princeton)



- 11:00–13:00 Poster session 4
- 13:00-14:00 Lunch
- 14:00–15:00 Invited speech by Joris de Man, Composer.
- 15:00–16:00 Buisiness meeting
- 16:00–17:45 Poster session 5
- 18:00–22:00 Guided tour and conference diner (at National Museum "From Musical Clock to Street Organ")

Friday 13 August (at Conservatoire)

- 9:30–11:00 Late breaking-demo
- 11:00–13:00 Plenary session 4
- 13:00–13:30 Closing remarks

Plenary and Poster Sessions

Monday, 9 August, 10:00-13:00 Tutorials 1 and 2

- 1. Emmanuel Vincent (INRIA) and Nobutaka Ono (University of Tokyo). Music Source Separation and its Applications to MIR.
- Ian Knopke (BBC) and Eric Nichols (Indiana University). A Tutorial on Pattern Discovery and Search Methods in Symbolic Music Information Retrieval.

Monday 9 August, 14:00–17:00 Tutorials 3 and 4

- Meinard Müller (Saarland University and MPI Informatik) and Anssi Klapuri (Queen Mary, University of London).
 A Music-oriented Approach To Music Signal Processing.
- Ben Fields (Goldsmiths, University of London) and Paul Lamere (The Echo Nest). Finding A Path Through The Jukebox — The Playlist Tutorial.

Tuesday 10 August, 11:00–13:00 Poster session 1

- A Comparative Evaluation of Algorithms for Discovering Translational Patterns in Baroque Keyboard Works Tom Collins, Jeremy Thurlow, Robin Laney, Alistair Willis and Paul H. Garthwaite
- 2. A Multi-Perspective Evaluation Framework for Chord Recognition Verena Konz, Meinard Müller and Sebastian Ewert
- 3. A Probabilistic Approach to Merge Context and Content Information for Music Retrieval

Riccardo Miotto and Nicola Orio

4. A Probabilistic Subspace Model for Multi-instrument Polyphonic Transcription

Graham Grindlay and Daniel P.W. Ellis

- 5. A Segmentation-based Tempo Induction Method Maxime Le Coz, Helene Lachambre, Lionel Koenig and Regine Andre-Obrecht
- AMUSE (Advanced MUSic Explorer) A Multitool Framework for Music Data Analysis
 Igor Vatolkin, Wolfgang Theimer and Martin Botteck
- 7. **An Improved Hierarchical Approach for Music-to-symbolic Score Alignment** Cyril Joder, Slim Essid and Gaël Richard
- 8. An Improved Query by Singing/Humming System Using Melody and Lyrics Information

Chung-Che Wang, Jyh-Shing Roger Jang and Wennen Wang

- 9. An Interchange Format for Optical Music Recognition Applications Andrew Hankinson, Laurent Pugin and Ichiro Fujinaga
- Are Tags Better Than Audio? The Effect of Joint Use of Tags and Audio Content Features for Artistic Style Clustering Dingding Wang, Tao Li and Mitsunori Ogihara
- Automated Music Slideshow Generation Using Web Images Based on Lyrics Shintaro Funasawa, Hiromi Ishizaki, Keiichiro Hoashi, Yasuhiro Takishima and Jiro Katto
- 12. Automatic Characterization of Digital Music for Rhythmic Auditory Stimulation

Eric Humphrey

- 13. Automatic Mood Classification Using TF*IDF Based on Lyrics Menno van Zaanen and Pieter Kanters
- 14. Automatic Music Tagging With Time Series Models Emanuele Coviello, Luke Barrington, Antony B. Chan and Gert R.G. Lanckriet

15. Autoregressive MFCC Models for Genre Classification Improved by Harmonicpercussion Separation

Halfdan Rump, Shigeki Miyabe, Emiru Tsunoo, Nobutaka Ono and Shigeki Sagayama

16. Bass Playing Style Detection Based on High-level Features and Pattern Similarity

Jakob Abesser, Paul Bräuer, Hanna Lukashevich and Gerald Schuller

- 17. Beat Critic: Beat Tracking Octave Error Identification By Metrical Profile Analysis Leigh M. Smith
- Boosting for Multi-Modal Music Emotion Classification Qi Lu, Xiaoou Chen, Deshun Yang and Jun Wang
- 19. Clustering Beat-Chroma Patterns in a Large Music Database Thierry Bertin-Mahieux, Ron J. Weiss and Dan P.W. Ellis

Tuesday 10 August, 14:00–16:00 Plenary session 1 Session chair: Elaine Chew

- 1. What's Hot? Estimating Country-specific Artist Popularity Markus Schedl, Tim Pohle, Noam Koenigstein and Peter Knees
- 2. Identifying Repeated Patterns in Music Using Sparse Convolutive Non-negative Matrix Factorization

Ron J. Weiss and Juan Pablo Bello

3. Locating Tune Changes and Providing a Semantic Labelling of Sets of Irish Traditional Tunes

Cillian Kelly, Mikel Gainza, David Dorran and Eugene Coyle

- Approximate Note Transcription for the Improved Identification of Difficult Chords Matthias Mauch and Simon Dixon
- 5. Concurrent Estimation of Chords and Keys from Audio Thomas Rocher, Matthias Robine, Pierre Hanna and Laurent Oudre

6. Solving Misheard Lyric Search Queries Using a Probabilistic Model of Speech Sounds

Hussein Hirjee and Daniel G. Brown

Tuesday 10 August, 16:00–17:45 Poster session 2

- 1. **Concurrent Estimation of Chords and Keys from Audio** Thomas Rocher, Matthias Robine, Pierre Hanna and Laurent Oudre
- 2. Collaborative Filtering Based on P2P Networks Noam Koenigstein, Gert Lanckriet, Brian McFee and Yuval Shavitt
- 3. Combined Audio and Video Analysis for Guitar Chord Identification Alex Hrybyk and Youngmoo Kim
- 4. Combining Chroma Features For Cover Version Identification Teppo E. Ahonen
- 5. **Combining Features Reduces Hubness in Audio Similarity** Arthur Flexer, Dominik Schnitzer, Martin Gasser and Tim Pohle
- Computational Analysis of Musical Influence: A Musicological Case Study Using MIR Tools Nick Collins
- 7. Crowdsourcing Music Similarity Judgments using Mechanical Turk Jin Ha Lee
- Decomposition Into Autonomous and Comparable Blocks: A Structural Description of Music Pieces
 Frédéric Bimbot, Olivier Le Blouch, Gabriel Sargent and Emmanuel Vincent
- 9. Discovering Metadata Inconsistencies Bruno Angeles, Cory McKay and Ichiro Fujinaga
- 10. **Discovery of Contrapuntal Patterns** Darrell Conklin and Mathieu Bergeron

- 11. Eigenvector-based Relational Motif Discovery Alberto Pinto
- 12. Evaluating the Genre Classification Performance of Lyrical Features Relative to Audio, Symbolic and Cultural Features Cory McKay, John Ashley Burgoyne, Jason Hockman, Jordan B.L. Smith, Gabriel

Vigliensoni and Ichiro Fujinaga

- 13. Evaluation of a Score-informed Source Separation System Joachim Ganseman, Paul Scheunders, Gautham J. Mysore and Jonathan Abel
- 14. Evidence for Pianist-specific Rubato Style in Chopin Nocturnes Miguel Molina-Solana, Maarten Grachten and Gerhard Widmer
- 15. Fast vs Slow: Learning Tempo Octaves from User Data Jason A. Hockman and Ichiro Fujinaga
- 16. Geoshuffle: Location-Aware, Content-based Music Browsing Using Self-organizing Tag Clouds Scott Miller, Paul Reimer, Steven Ness and George Tzanetakis
- 17. Handling Repeats and Jumps in Score-performance Synchronization Christian Fremerey, Meinard Müller and Michael Clausen
- 18. Hierarchical Co-Clustering of Artists and Tags Jingxuan Li, Tao Li and Mitsunori Ogihara

Wednesday 11 August, 9:30–11:30 Plenary session 2 Session chair: Ichiro Fujinaga

- 1. **State of the Art Report: Music Emotion Recognition: A State of the Art Review** Youngmoo E. Kim, Erik M. Schmidt, Raymond Migneco, Brandon G. Morton, Patrick Richardson, Jeffrey Scott, Jacquelin A. Speck and Douglas Turnbull
- Looking Through the "Glass Ceiling": A Conceptual Framework for the Problems of Spectral Similarity Ioannis Karydis, Miloš Radovanović, Alexandros Nanopoulos and Mirjana Ivanović

3. On the Applicability of Peer-to-peer Data in Music Information Retrieval Research

Noam Koenigstein, Yuval Shavitt, Ela Weinsberg and Udi Weinsberg

4. A Cartesian Ensemble of Feature Subspace Classifiers for Music Categorization

Thomas Lidy, Rudolf Mayer, Andreas Rauber, Pedro J. Ponce de León, Antonio Pertusa, and Jose Manuel Iñesta

5. **Improving the Generation of Ground Truths Based on Partially Ordered Lists** Julián Urbano, Mónica Marrero, Diego Martín and Juan Lloréns

Wednesday 11 August 11:30–13:00 Poster session 3

- 1. **Improving the Generation of Ground Truths Based on Partially Ordered Lists** Julián Urbano, Mónica Marrero, Diego Martín and Juan Lloréns
- 2. **IBT: A Real-time Tempo and Beat Tracking System** João Lobato Oliveira, Fabien Gouyon, Luis Gustavo Martins and Luis Paulo Reis
- 3. Improving Auto-tagging by Modeling Semantic Co-occurrences Riccardo Miotto, Luke Barrington and Gert Lanckriet
- 4. Improving Markov Model Based Music Piece Structure Labelling with Acoustic Information Jouni Paulus
- 5. Infinite Latent Harmonic Allocation: A Nonparametric Bayesian Approach to Multipitch Analysis

Kazuyoshi Yoshii and Masataka Goto

- 6. **Informed Source Separation of Orchestra and Soloist** Yushen Han and Christopher Raphael
- 7. **Is There a Relation Between the Syntax and the Fitness of an Audio Feature?** Gabriele Barbieri, François Pachet, Mirko Degli Esposti and Pierre Roy

8. Islands of Gaussians: The Self Organizing Map and Gaussian Music Similarity Features

Dominik Schnitzer, Arthur Flexer, Gerhard Widmer and Martin Gasser

- 9. It's Time for a Song Transcribing Recordings of Bell-playing Clocks Matija Marolt and Marieke Lefeber
- 10. Learning Features from Music Audio with Deep Belief Networks Philippe Hamel and Douglas Eck
- 11. Learning Similarity from Collaborative Filters Brian McFee, Luke Barrington and Gert Lanckriet
- Characterization and Similarity in A Cappella Flamenco Cantes Joaquín Mora, Francisco Gómez, Emilia Gómez, Francisco Escobar-Borrego and José Miguel Díaz-Báñez
- 13. Melody Extraction from Polyphonic Audio Based on Particle Filter Seokhwan Jo and Chang D. Yoo
- Multiple Pitch Transcription using DBN-based Musicological Models Stanisław Andrzej Raczyński, Emmanuel Vincent, Frédéric Bimbot and Shigeki Sagayama
- 15. Modified Ais-based Classifier for Music Genre Classification Noor Azilah Draman, Campbell Wilson and Sea Ling
- 16. Monophonic Instrument Sound Segregation by Clustering NMF Components Based on Basis Similarity and Gain Disjointness Kazuma Murao, Masahiro Nakano, Yu Kitano, Nobutaka Ono and Shigeki Sagayama
- 17. Multiple Viewpoints Modeling of Tabla Sequences Parag Chordia, Avinash Sastry, Trishul Malikarjuna and Aaron Albin
- Music Genre Classification via Compressive Sampling Kaichun K. Chang, Jyh-Shing Roger Jang and Costas S. Iliopoulos
- 19. A Cartesian Ensemble of Feature Subspace Classifiers for Music Categorization

Thomas Lidy, Rudolf Mayer, Andreas Rauber, Pedro J. Ponce de León, Antonio Pertusa, and Jose Manuel Iñesta

Wednesday 11 August, 14:00–16:00 Plenary session 3 Session chair: Meinard Müller

- Sparse Multi-label Linear Embedding Within Nonnegative Tensor Factorization Applied to Music Tagging Yannis Panagakis, Constantine Kotropoulos and Gonzalo R. Arce
- 2. Learning Tags that Vary Within a Song Michael I. Mandel, Douglas Eck and Yoshua Bengio
- 3. Predicting High-level Music Semantics Using Social Tags via Ontology-based Reasoning

Jun Wang, Xiaoou Chen, Yajie Hu and Tao Feng

Understanding Features and Distance Functions for Music Sequence Alignment
 Ozgur Izmirli and Roger Dannenberg

Ozgur izinini and Roger Dannenberg

- 5. A Multi-pass Algorithm for Accurate Audio-to-Score Alignment Bernhard Niedermayer and Gerhard Widmer
- 6. Accurate Real-time Windowed Time Warping Robert Macrae and Simon Dixon

Thursday 12 August, 9:30–11:00 f(MIR)

- Predicting Development of Research in Music Based on Parallels with Natural Language Processing Jacek Wołkowicz, Vlado Kešelj
- 2. A Roadmap Towards Versatile MIR Emmanuel Vincent, Stanislaw Raczynski, Nobutaka Ono, Shigeki Sagayama
- 3. The Future of MIR at Google Douglas Eck

Thursday 12 August, 11:00–13:00 Poster session 4

 Sparse Multi-label Linear Embedding Within Nonnegative Tensor Factorization Applied to Music Tagging Yannis Panagakis, Constantine Kotropoulos and Gonzalo R. Arce

2. Music21: A Toolkit for Computer-Aided Musicology and Symbolic Music Data Michael Scott Cuthbert and Christopher Ariza

- Music Structure Discovery in Popular Music using Non-negative Matrix Factorization Florian Kaiser and Thomas Sikora
- Musical Instrument Recognition using Biologically Inspired Filtering of Temporal Dictionary Atoms
 Steven K. Tjoa and K.J. Ray Liu
- 5. **YAAFE, an Easy to Use and Efficient Audio Feature Extraction Software** Benoit Mathieu, Slim Essid, Thomas Fillon, Jacques Prado and Gaël Richard
- 6. On the Use of Microblogging Posts for Similarity Estimation and Artist Labeling

Markus Schedl

- 7. **Parataxis: Morphological Similarity in Traditional Music** Andre Holzapfel and Yannis Stylianou
- 8. Pitch Class Set Categories as Analysis Tools for Degrees of Tonality Aline K. Honingh and Rens Bod
- 9. **Prediction of Time-varying Musical Mood Distributions from Audio** Erik M. Schmidt and Youngmoo E. Kim
- 10. Quantifying the Benefits of Using an Interactive Decision Support Tool for Creating Musical Accompaniment in a Particular Style Ching-Hua Chuan and Elaine Chew

- Query-by-conducting: An Interface to Retrieve Classical-music Interpretations by Real-time Tempo Input Akira Maezawa, Masataka Goto and Hiroshi G. Okuno
- 12. Querying Improvised Music: Do You Sound Like Yourself? Michael O. Jewell, Christophe Rhodes and Mark d'Inverno
- 13. Real-time Polyphonic Music Transcription with Non-negative Matrix Factorization and Beta-divergence

Arnaud Dessein, Arshia Cont and Guillaume Lemaitre

- 14. **Recognising Classical Works in Historical Recordings** Tim Crawford, Matthias Mauch and Christophe Rhodes
- 15. Recognition of Variations Using Automatic Schenkerian Reduction Alan Marsden
- 16. Scalable Genre and Tag Prediction with Spectral Covariance James Bergstra, Michael Mandel and Douglas Eck
- 17. Similarity Measures for Chinese Pop Music Based on Low-level Audio Signal Attributes Chun-Man Mak, Tan Lee, Suman Senapati, Yu-Ting Yeung and Wang-Kong Lam
- 18. Singing / Rap Classification of Isolated Vocal Tracks Daniel Gärtner
- 19. Singing Pitch Extraction by Voice Vibrato / Tremolo Estimation and Instrument Partial Deletion

Chao-Ling Hsu and Jyh-Shing Roger Jang

Thursday 12 August 16:00–17:45 Poster session 5

1. Upbeat and Quirky, With a Bit of a Build: Interpretive Repertoires in Creative Music Search

Charlie Inskip, Andy MacFarlane and Pauline Rafferty

- 2. An Audio Processing Library for MIR Application Development in Flash Jeffrey Scott, Raymond Migneco, Brandon Morton, Christian M. Hahn, Paul Diefenbach and Youngmoo E. Kim
- 3. SongWords: Exploring Music Collections Through Lyrics Dominikus Baur, Bartholomäus Steinmayr and Andreas Butz
- 4. **String Quartet Classification with Monophonic Models** Ruben Hillewaere, Bernard Manderick and Darrell Conklin
- Supervised and Unsupervised Web Document Filtering Techniques to Improve Text-Based Music Retrieval Peter Knees, Markus Schedl, Tim Pohle, Klaus Seyerlehner and Gerhard Widmer
- 6. **Symbol Classification Approach for OMR of Square Notation Manuscripts** Carolina Ramirez and Jun Ohya
- 7. **Tempo Induction Using Filterbank Analysis and Tonal Features** Aggelos Gkiokas, Vasilis Katsouros and George Carayannis
- 8. The Standardized Variogram as a Novel Tool for Music Similarity Evaluation Simone Sammartino, Lorenzo José Tardón, Cristina de la Bandera, Isabel Barbancho and Ana M. Barbancho
- 9. ThumbnailDJ: Visual Thumbnails of Music Content Ya-Xi Chen and René Klüber
- 10. **Timbral Qualities of Semantic Structures of Music** Rafael Ferrer and Tuomas Eerola
- 11. Towards More Robust Geometric Content-Based Music Retrieval Kjell Lemström
- Tunepal Disseminating a Music Information Retrieval System to the Traditional Irish Music Community Bryan Duggan and Brendan O'Shea
- 13. Universal Onset Detection with Bidirectional Long Short-Term Memory Neural Networks

Florian Eyben, Sebastian Böck, Björn Schuller and Alex Graves

14. Unsupervised Accuracy Improvement for Cover Song Detection Using Spectral Connectivity Network

Mathieu Lagrange and Joan Serrà

15. Users' Relevance Criteria in Music Retrieval in Everyday Life: An Exploratory Study

Audrey Laplante

16. Using jWebMiner 2.0 to Improve Music Classification Performance by Combining Different Types of Features Mined from the Web

Gabriel Vigliensoni, Cory McKay and Ichiro Fujinaga

- Vocalist Gender Recognition in Recorded Popular Music
 Björn Schuller, Christoph Kozielski, Felix Weninger, Florian Eyben and Gerhard Rigoll
- 18. When Lyrics Outperform Audio for Music Mood Classification: A Feature Analysis

Xiao Hu and J. Stephen Downie

Friday 13 August, 9:30-11:00 Late-Breaking / Demo Session

- 1. From Theory to Practice: The Development and Application of a Music Classification and Content Personalization Hybrid System Ricardo Tarrasch
- 2. Pattern Identification in Melody via Wavelets Gissel Velarde
- Song Prompter: An Accompaniment System based on the Automatic Alignment of Lyrics and Chords to Audio Matthias Mauch, Hiromasa Fujihara and Masataka Goto
- 4. Exploiting Online Resources to Improve Chord Recognition Accuracy. Matt McVicar and Tijl De Bie

- Interactive Controller for Audio Object Localization and Automatic Thumbnail Music Generator Noriyoshi Kamado, Hiroyuki Nawata, Hiroshi Saruwatari and Kiyohiro Shikano
- 6. **Score-Informed Audio Parametrization** Sebastian Ewert and Meinard Mueller
- 7. Clone Detection for Max/MSP Patch Libraries Nicolas Gold, Jens Krinke, Mark Harman and David Binkley
- 8. **MusicGalaxy: An Adaptive User-Interface for Exploratory Music Retrieval** Sebastian Stober and Andreas Nürnberger
- 9. A Novel Timeline Adjustment Functionality for the Interpretation Switcher Meinard Mueller, Verena Konz, Peter Grosche, Nanzhu Jiang and Zhe Zuo
- 10. Fight Against Variant Tempo: Query by Humming and Clapping Ruofeng Chen
- 11. Cloudspeakers Chris Bol, Stan van de Burgt and Arjen De Vries
- 12. Characterisation of Composer Style using High Level Musical Features Lesley Mearns and Simon Dixon
- 13. The Wekinator: A System for Real-time, Interactive Machine Learning in Music

Rebecca Fiebrink and Perry R. Cook

- 14. **The Echo Nest Musical Fingerprint** Daniel Ellis, Brian Whitman, Tristan Jehan and Paul Lamere
- 15. Sonarflow: Visual Music Exploration & Discovery Thomas Lidy
- 16. **Functional Harmony Annotation Database for Statistical Music Analysis** Hitomi Kaneko, Daisuke Kawakami and Shigeki Sagayama
- 17. A Demo of AMUSE (Advanced MUSic Explorer) Igor Vatolkin, Wolfgang Theimer and Martin Botteck

- 18. The Music Inventory Database Laurent Pugin
- 19. Demonstration of the PerlHumdrum Analysis Toolkit (PHAT) Ian Knopke
- 20. Semantics for Signal and Result Collections through Linked Data: How Country is my Country?

Kevin Page, Benjamin Fields, Tim Crawford, David De Roure, Gianni O'Neill and Bart Nagel

- 21. **Timbre-Based Percussive Rhythm Classification and Retrieval** Michael Casey and Spencer Topel
- 22. LinkedBrainz: Providing the MusicBrainz Next Generation Schema as Linked Data

Kurt Jacobson, Simon Dixon and Mark Sandler

- 23. Rhyme Analyzer: An Analysis Tool for Rap Lyrics Hussein Hirjee and Daniel Brown
- 24. Audio Melody Extraction: Late Breaking at ISMIR 2010 Karin Dressler
- 25. Gordon Music Collection Database Management System Douglas Eck, Jorge Orpinel, Ron Weiss and Juan Bello

26. Towards Music Performing Humanoids

David Grunberg, Alyssa Batula, Daniel M. Lofaro, JunHo Oh, Paul Y. Oh and Young-moo E. Kim

27. MIREX-DIY under NEMA

Guojun Zhu, Kris West, Amit Kumar, Andrew Shirk, Andreas Ehmann, Mert Bay and J. Stephen Downie

28. Evaluation of Performance-to-Score MIDI Alignment of Piano Duets KatieAnna Wolf and Elaine Chew

29. **Temperament Estimation as an MIR task** Dan Tidhar, Gyorgy Fazekas, Matthias Mauch and Simon Dixon

- The Music Encoding Initiative: Release 2010-05
 Johannes Kepper, Laurent Pugin, Perry Roland and Raffaele Viglianti
- 31. An Online Interface to explore Audio Segments Steven Ness, Peter van Kranenburg

Friday 13 August, 11:00–13:00 Plenary session 4 Session chair: Kjell Lemström

- 1. **State of the Art Report: Audio-Based Music Structure Analysis** Jouni Paulus, Meinard Müller and Anssi Klapuri
- 2. Music21: A Toolkit for Computer-Aided Musicology and Symbolic Music Data Michael Scott Cuthbert and Christopher Ariza
- 3. An Audio Processing Library for MIR Application Development in Flash Jeffrey Scott, Raymond Migneco, Brandon Morton, Christian M. Hahn, Paul Diefenbach and Youngmoo E. Kim
- 4. What Makes Beat Tracking Difficult? A Case Study on Chopin Mazurkas Peter Grosche, Meinard Müller and Craig Stuart Sapp
- 5. Upbeat and Quirky, With a Bit of a Build: Interpretive Repertoires in Creative Music Search

Charlie Inskip, Andy MacFarlane and Pauline Rafferty

Social Events

Reception and Carillon Recital

Tuesday evening, starting at 18:00, there will be a reception, sponsored by the City of Utrecht, in the garden of the "Academie Gebouw" of Utrecht University. The reception will be accompanied by a carillon recital by Arie Abbenes, performed on the Hemony Carillon of the Dom Tower.

At 18:15, Arie Abbenes will give a short introduction to the concert. Next the Deputy Major of Utrecht, Rinda den Besten, will officially welcome ISMIR 2010 to Utrecht, after which the recital will start.

Programme

1. Bravade	Jacob van Eijck (c.1590–1657)
2. Variaties over "Willem van Nassau"	W.A. Mozart (1756–1791)
3. Songs of "The Beatles"a. Blackbirdb. The fool on the Hillc. With a little help from my Friendsd. All my loving	John Lennon / Paul McCartney
4. Doen Daphne d'overschone maeght	Jacob van Eijck
5. Variations on "Ah! vous dirai-je maman"	W.A.Mozart
6. Songs of "The Beatles"a. Girlb. Here, there and everywherec. Michelled. For no one	John Lennon / Paul McCartney
7. Amarilli mia bella	Jacob van Eijck

About Arie Abbenes

Arie Abbenes was born in Den Helder and studied carillon with Peter Bakker in Hilversum and Piet van den Broek at Carillon School in Mechelen. He received his final degree in 1968 with "Great Honours".

For 25 years he performs on the carillon at the Dom tower in Utrecht at the Holland Festival of Early Music. Inspired by this, he developed new innovative ideas regarding carillon restoration. The recent restoration of the carillons in Nijkerk (1777), Turnhout (1779), Helmond (1723) and Kampen (1661) are among the carillons that show the results hereof.

During 1971/73 Abbenes was employed Associate Professor of Music in Carillon and Campanology at the renowned Indiana University School of Music in Bloomington, Indiana (USA). On the Dutch Carillon School (Faculty of Music of the Utrect School of Arts) he was affiliated as professor of carillon for 21 years.

For a long time, Arie Abbenes was city-carillonneur of Asten, Eindhoven, Tilburg and Son. Currently, he is the carillonneur of Oirschot and Utrecht, where he plays the Hemony carillons in the Dom (1664) and Nicolaïkerk (1649) and the new Petit & Fritsen carillon in Vleuten. He made several Radio, television and CD recordings and he performed in the Netherlands, Belgium, France, Germany, Denmark, Spain, Portugal, United States, England, Ireland, Japan, Switzerland and Korea.

In 2004 he received the Knighthood in the Order of Oranje Nassau for his merits for the carillon in the Netherlands and abroad. On the occasion of his forty-year jubilee in 2007, Arie Abbenes was appointed honorary citizen of Asten.

HKU Recital

After Wednesday's scientific program the Utrecht School of Music and Technology (US-MuT) presents a concert.

The Utrecht School of Music and Technology is a professional Music Education focusing on composition, production and musictechnology. USMuT is one of the Schools of the Utrecht School of the Arts (HKU). USMuT was founded in 1985 and developed into a large and very successful School with well over 400 students. USMuT offers a preparatory course, and grades as BA, MA as well as MPhil and PhD. 95% of the graduates work and earn a living within 2 years after graduation, USMuT educates for real existing jobs. Composition is taught in several contexts like Stage, Media (Film & TV), Modern Dance, Theatre, Games etc. Students usually specialize in two or three contexts. USMuT has a faculty of 35 professionals, most of them in part-time jobs combined with their own professional practice.

Program

Three compositions for prepared piano, Disklavier-grand piano and electronics performed by Sonsoles Alonso.

- 1. Niek Lucassen: "Short Piece for Prepared Piano"
- 2. Ben Wallet: "Oh, Aarde bestel mij nu meteen, timmer zes planken om mij heen"
- 3. Rogier van Straten: "Improvisation for piano, Disklavier en electronics"

Three compostitions for various electronics.

- 4. Konstantinos Vasilakos: "..." for singing voice, Petzhold-blokfluit and electronics.
- 5. Laurens van der Wee: "Cake" for analogue synthesizer and sonic improvisation system.
- 6. Augusto Meijer: "Bioluminescence" for fixed media and 4 loudspeakers.

About the composers and their pieces

Niek Lucassen: "Short Piece for Prepared Piano"

This piece was based on the idea of "order vs. chaos" and "sound vs. music". The sound of the piano is altered by screws, haircomb and the by use of an E-bow.

Niek Lucassen (1986) studies Composition & Music Production and works on contemporary classical music and composition for media.

Ben Wallet: "Oh, Aarde bestel mij nu meteen, timmer zes planken om mij heen" This futile cry of despair takes only a little less than 10 minutes, but afterwards you will definitely feel 10 years older.

Ben Wallet studies Compositie voor de Media.

Laurens van der Wee: "The Cake", performance Eliad Wagner on analog synthesizers

The Cake is a sonic improvisation system, built to perform with a musician. An analysis algorithm will reduce two incoming sound streams to one single stream, cut this up and classify the segments. This library is then used to drive the synthesis. The Cake likes to be judged on its musical output.

Laurens van der Wee (1982) is a sonic designer currently enrolled in a Master of Music program at the Music Technology department of the Utrecht School of the Arts. Projects include Tilemaster (SMC & ICMC 2009), VOID (electronics for modern dance), No Sine Cure (oscilloscope performance, ICMC 2008) and Anthèmes 2 (software).

Augusto Meijer: "Bioluminescence" for fixed-media and 4 loudspeakers

"Bioluminescence" is a mystical journey of sound, which displays the world of bioluminescent creatures that live in the great depths of our oceans. "Bioluminescence" is primarily made for an art installation project, in which both light-art and the "Bioluminescence" piece attempt to trigger our senses to experience this journey. There is a second version of the piece made for concert performances.

Augusto Meijer is an electro-acoustic music composer from the Netherlands. Augusto was born in Colombia, in 1988. At the moment he studies for a master in "composition in context" at the Utrecht School of the Arts. In this study, he focuses strongly on electro-acoustic music, and composition techniques. He uses synthesizers and samplers to create his sound material. All following procedures are done within the computer. The first tape piece was completed in 2007. After that, he discovered he wanted to continue focusing on fixed media pieces. Multidisciplinair performances, doing research and practise on composing techniques & spatial composing are part of that development.

Performer: Sonsoles Alonso

Spanish-born, Netherlands-based Sonsoles Alonso is so very much more than just a versatile pianist.

Sonsoles is on the cutting edge of new music. The last decade saw her grow both as a musician and performer, continually redefining her self and emerging as a major voice in the growing contemporary piano and (live) electronics formats.

Influenced by her teachers Anthony de Mare and Morton Feldman's disciple Nils Vigeland, Sonsoles moved to Amsterdam in 1996. During the past 10 years she has built an impressive career with concerts in Holland and abroad, multidisciplinary projects plus concerts with other musicians and different ensembles. Sonsoles also improvises and works with live electronics as well.

She has been heard during: Gentse Vleugels (Belgium), Gaudeamus Week (Amsterdam), Festival Punto Aparte (Spain), Ton de Leeuw Festival (Tirana), Randspiele Festival (Berlin), Rumor Festival (Utrecht), Festival Spazio Musica (Cagliari), Festival November Music (Den Bosch), Deep Listening Space of Pauline Oliveros (New York). In 2009 she premiered Dromomania with German pianist Moritz Eggert and Dear Santa... with fluxus artist Willem de Ridder. Upcoming collaborations include: Electra + Sonsoles.

Sonsoles holds degrees in Classical Piano Performance from the Royal Conservatory of Madrid and the Manhattan School of Music (Master's Degree) in New York. At the Conservatory of Amsterdam she followed the course "Contemporary Music through Non-Western Techniques" focusing on rhythmic complexity.

She is often invited to give lectures and master classes on the subject of "Contemporary Music with and without (Live) Electronics" and "Prepared Piano & Inside Piano" both in The Netherlands and abroad.

Excursion and Conference Diner

The conference dinner will take place at the National Museum "From Musical Clock to Street Organ". This museum hosts a spectacular collection of mechanical instruments, dating from the Middle Ages to the 20th Century. During the guided tour preceding the Conference Dinner, quite a few of the more spectacular instruments will be demonstrated. In particular you will come across the precursor of that ubiquitous MIR tool, piano roll notation, in its authentic, material form, punched in cardboard.

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